AUTHOR INDEX

A

Armstrong, C. M. *See* Matteson and Armstrong.

B

Betz, W. J., and Caldwell, J. H. Mapping electric currents around skeletal muscle with a vibrating probe. 143

—, **Caldwell, J. H., and Kinnamon, S. C.** Physiological basis of a steady endogenous current in rat lumbrical muscle. 175

—. *See* Caldwell and Betz.

Bezanilla, F. *See* Llano and Bezanilla.

Brown, A. M., Lux, H. D., and Wilson, D. L. Activation and inactivation of single calcium channels in snail neurons. 751

—. *See* Lux and Brown.

Burnside, B. *See* Dearry and Burnside.

C

Caldwell, J. H., and Betz, W. J. Properties of an endogenous steady current in rat muscle. 157

—. *See* Betz and Caldwell.

—. *See* Betz, Caldwell, and Kinnamon.

Cohen, I. S. *See* Falk and Cohen.

Cohen, S. *See* Grinstein, Cohen, and Rothstein.

Costantin, J. L. *See* Reuss and Costantin.

D

Dearry, A., and Burnside, B. Effects of extracellular Ca^{++}, K^+, and Na^+ on cone and retinal pigment epithelium retinomotor movements in isolated teleost retinas. 589

deBruin, G. *See* VanMeerwijk, deBruin, Van Ginneken, VanHartevelt, Jongsma, Kruyt, Scott, and Ypey.

DeSimone, J. A., Heck, G. L., Mierson, S., and DeSimone, S. K. The active ion transport properties of canine lingual epithelia in vitro. Implications for gustatory transduction. 633

DeSimone, S. K. *See* DeSimone, Heck, Mierson, and DeSimone.

Dubinsky, J. M., and Oxford, G. S. Ionic currents in two strains of rat anterior pituitary tumor cells. 309

F

Falk, R. T., and Cohen, I. S. Membrane current following activity in canine cardiac Purkinje fibers. 771

Farber, D. *See* Miller and Farber.

Farley, J. M. *See* Vogel, Watanabe, Yeh, Farley, and Narahashi.

Finkelstein, A. *See* Levine, Jacoby, and Finkelstein.

Fischmeister, R. *See* Mentrard, Vassort, and Fischmeister.

Furuya, W., Tarshis, T., Law, F.-Y., and Knauf, P. A. Transmembrane effects of intracellular chloride on the inhibitory potency of extracellular H_2DIDS. Evidence for two conformations of the transport site of human erythrocyte anion exchange protein. 657

—. *See* Knauf, Law, Tarshis, and Furuya.

G

Garcia, A. M., and Miller, C. Channel-mediated monovalent cation fluxes in isolated sarcoplasmic reticulum vesicles. 819

Gordon, A. M. *See* Ridgway and Gordon.

Gorman, A. L. F. *See* Hermann and Gorman.

Griff, E. R., and Steinberg, R. H. Changes in apical $[K^+]$ produce delayed basal membrane responses of the retinal pigment epithelium in the gecko. 193

Grinstein, S., Cohen, S., and Rothstein, A. Cytoplasmic pH regulation in thymic lymphocytes by an amiloride-sensitive Na^+/H^+ antiport. 341

H

Hartzell, H. C. Phosphorylation of C-protein in intact amphibian cardiac muscle. Correlation between ^{32}P incorporation and twitch relaxation. 563

Heck, G. L. *See* DeSimone, Heck, Mierson, and DeSimone.

Hermann, A., and Gorman, A. L. F. Action of quinidine on ionic currents of molluscan pacemaker neurons. 919

Hess, P., and Wier, W. G. Excitation-contraction coupling in cardiac Purkinje fibers. Effects of caffeine on the intracellular Ca^{2+} transient, membrane currents, and contraction. 417

—. *See* Wier and Hess.

Hoffman, J. F. *See* Yingst and Hoffman.

Hornung, D. E. *See* Mozell, Sheehe, Swieck, Kurtz, and Hornung.

Horres, C. R. *See* Jacob, Piwnica-Worms, Horres, and Lieberman.

Hughes, B. A., Miller, S. S., and Machen, T. E. Effects of cyclic AMP on fluid absorption and ion transport across frog retinal pigment epithelium. Measurements in the open-circuit state. 875

J

Jacob, R., Piwnica-Worms, D., Horres, C. R., and Lieberman, M. Theoretical effects of transmembrane electroneutral exchange on membrane potential. 47

Jacoby, M. *See* Levine, Jacoby, and Finkelstein.

Jongsma, H. J. *See* VanMeerwijk, deBruin, Van Ginneken, VanHartevelt, Jongsma, Kruyt, Scott, and Ypey.

K

Kinnamon, S. C. *See* Betz, Caldwell, and Kinnamon.

Knauf, P. A., Law, F.-Y., Tarshis, T., and Furuya, W. Effects of transport site conformation on the binding of external NAP-taurine to the human erythrocyte anion exchange system. Evidence for intrinsic asymmetry. 683

—, **and Mann, N. A.** Use of niflumic acid to determine the nature of the asymmetry of the human erythrocyte anion exchange system. 703

—. *See* Furuya, Tarshis, Law, and Knauf.

Kruyt, E. W. *See* VanMeerwijk, deBruin, Van Ginneken, VanHartevelt, Jongsma, Kruyt, Scott, and Ypey.

Kurtz, D. B. *See* Mozell, Sheehe, Swieck, Kurtz, and Hornung.

L

Labarca, P., Lindstrom, J., and Montal, M. Acetylcholine receptor in planar lipid bilayers. Characterization of the channel properties of the purified nicotinic acetylcholine receptor from *Torpedo californica* reconstituted in planar lipid bilayers. 473

Law, F.-Y. *See* Furuya, Tarshis, Law, and Knauf.

—. *See* Knauf, Law, Tarshis, and Furuya.

Lee, C. O. *See* Vassalle and Lee.

Lemos, J. R., and Levitan, I. B. Intracellular injection of guanyl nucleotides alters the serotonin-induced increase in potassium conductance in *Aplysia* neuron R15. 269

Levitan, I. B. *See* Lemos and Levitan.

Levine, S. D., Jacoby, M., and Finkelstein, A. The water permeability of toad urinary bladder. I. Permeability of barriers in series with the luminal membrane. 529

—, **Jacoby, M., and Finkelstein, A.** The water permeability of toad urinary bladder. II. The value of $P_f/P_d(w)$ for the antidiuretic hormone-induced water permeation pathway. 543

Lieberman, M. *See* Jacob, Piwnica-Worms, Horres, and Lieberman.

Linder, T. M., Pennefather, P., and Quastel, D. M. J. The time course of miniature endplate currents and its modification by receptor blockade and ethanol. 435

Lindstrom, J. *See* Labarca, Lindstrom, and Montal.

Linsenmeier, R. A., and Steinberg, R. H. Delayed basal hyperpolarization of cat retinal pigment epithelium and its relation to the fast oscillation of the DC electroretinogram. 213

Llano, I., and Bezanilla, F. Analysis of sodium current fluctuations in the cut-open squid giant axon. 133

Lux, H. D., and Brown, A. M. Patch and whole cell calcium currents recorded simultaneously in snail neurons. 727

—. *See* Brown, Lux, and Wilson.

M

Machen, T. E. *See* Hughes, Miller, and Machen.

Mack, E. *See* Sarkadi, Mack, and Rothstein.

Mann, N. A. *See* Knauf and Mann.

Matteson, D. R., and Armstrong, C. M. Na and Ca channels in a transformed line of anterior pituitary cells. 371

Mentrard, D., Vassort, G., and Fischmeister, R. Calcium-mediated inactivation of the calcium conductance in cesium-loaded frog heart cells. 105

Mierson, S. *See* DeSimone, Heck, Mierson, and DeSimone.

Miller, C. *See* Garcia and Miller.

Miller, S., and Farber, D. Cyclic AMP modulation of ion transport across frog retinal pigment epithelium. Measurements in the short-circuit state. 853

Miller, S. S. *See* Hughes, Miller, and Machen.

Montal, M. *See* Labarca, Lindstrom, and Montal.

Mozell, M. M., Sheehe, P. R., Swieck, S. W., Jr., Kurtz, D. B., and Hornung, D. E. A parametric study of the stimulation variables affecting the magnitude of the olfactory nerve response. 233

N

Nachshen, D. A. Selectivity of the Ca binding site in synaptosome Ca channels. Inhibition of Ca influx by multivalent metal cations. 941

Narahashi, T. *See* Vogel, Watanabe, Yeh, Farley, and Narahashi.

O

Oxford, G. S. *See* Dubinsky and Oxford.

P

Pennefather, P. *See* Linder, Pennefather, and Quastel.

Piwnica-Worms, D. *See* Jacob, Piwnica-Worms, Horres, and Lieberman.

Q

Quastel, D. M. J. *See* Linder, Pennefather, and Quastel.

R

Reuss, L., and Costantin, J. L. Cl^-/HCO_3^- exchange at the apical membrane of *Necturus* gallbladder. 801

—. *See* Weinman and Reuss.

Ridgway, E. B., and Gordon, A. M. Muscle calcium transient. Effect of post-stimulus length changes in single fibers. 75

Rothstein, A. *See* Grinstein, Cohen, and Rothstein.

—. *See* Sarkadi, Mack, and Rothstein.

S

Sarkadi, B., Mack, E., and Rothstein, A. Ionic events during the volume response of human peripheral blood lymphocytes to hypotonic media. I. Distinctions between volume-activated Cl^- and K^+ conductance pathways. 497

—, **Mack, E., and Rothstein, A.** Ionic events during the volume response of human peripheral blood lymphocytes to hypotonic media. II. Volume- and time-dependent activation and inactivation ion transport pathways. 513

Scott, S. S. *See* VanMeerwijk, deBruin, Van Ginneken, VanHartevelt, Jongsma, Kruyt, Scott, and Ypey.

Sheehe, P. R. *See* Mozell, Sheehe, Swieck, Kurtz, and Hornung.

Steinberg, R. H. *See* Griff and Steinberg.

—. *See* Linsenmeier and Steinberg.

Swieck, S. W., Jr. *See* Mozell, Sheehe, Swieck, Kurtz, and Hornung.

T

Tarshis, T. *See* Furuya, Tarshis, Law, and Knauf.

—. *See* Knauf, Law, Tarshis, and Furuya.

V

Van Ginneken, A. C. G. *See* Van Meerwijk, deBruin, Van Ginneken, VanHartevelt, Jongsma, Kruyt, Scott, and Ypey.

VanHartevelt, J. *See* VanMeerwijk, deBruin, Van Ginneken, VanHartevelt, Jongsma, Kruyt, Scott, and Ypey.

VanMeerwijk, W. P. M., deBruin, G., Van Ginneken, A. C. G., VanHartevelt, J., Jongsma, H. J., Kruyt, E. W., Scott, S. S., and Ypey, D. L. Phase resetting properties of cardiac pacemaker cells. 613

Vassalle, M., and Lee, C. O. The relationship among intracellular sodium activity, calcium, and strophanthidin inotropy in canine cardiac Purkinje fibers. 287

Vassort, G. *See* Mentrard, Vassort, and Fischmeister.

Vogel, S. P., Watanabe, S., Yeh, J. Z., Farley, J. M., and Narahashi, T. Current-dependent block of endplate channels by guanidine derivatives. 901

W

Watanabe, S. *See* Vogel, Watanabe, Yeh, Farley, and Narahashi.

Weinman, S. A., and Reuss, L. Na^+-H^+ exchange and Na^+ entry across the apical membrane of *Necturus* gallbladder. 57

Wier, W. G., and Hess, P. Excitation-contraction coupling in cardiac Purkinje fibers. Effects of cardiotonic steroids on the intracellular $[Ca^{2+}]$ transient, membrane potential, and contraction. 395

—. *See* Hess and Wier.

Williams, T. P. Some properties of old and new rhodopsin in single *Bufo* rods. 841

Wilson, D. L. *See* Brown, Lux, and Wilson.

Y

Yeh, J. Z. *See* Vogel, Watanabe, Yeh, Farley, and Narahashi.

Yingst, D. R., and Hoffman, J. F. Passive Ca transport in human red blood cell ghosts measured with entrapped arsenazo III. 1

—, **and Hoffman, J. F.** Ca-induced K transport in human red blood cell ghosts containing arsenazo III. Transmembrane interactions of Na, K, and Ca and the relationship to the functioning Na-K pump. 19

Ypey, D. L. *See* VanMeerwijk, deBruin, Van Ginneken, VanHartevelt, Jongsma, Kruyt, Scott, and Ypey.